Remarks

Claims 1-18 were rejected as unpatentable over CHAPONNIERE et al. 6,449,490 in view of PANKAJ 2002/0183066 and BOLGIANO et al. 6,366,568. The claims have been amended and reconsideration and withdrawal of the rejection are respectfully requested.

We refer to claim 1, as amended which is an independent method claim, taking into account objections of the Examiner against the examined claim 1.

1 - According to Examiner, Chaponniere fails to point out first step of the claimed method. As it is recited at the beginning of the specification, Chaponniere teaches a method of selecting at least one transmission channel.

2 - Pankaj does not teach to select a channel among a plurality of channels of the same type as that of the present invention. The recited plurality of channels in which at least one channel should be selected according to the examined claim 1, is covering all of the network the method controls. Conversely, Pankaj aims for only a part of the existing channels: that plurality which, at the time the data request is initiated by a user, is available to the user, and not the overall network. This is shown at para [0035] in which it is said that:

"a Channel is defined as the set of communications links for transmission between the AN 122 and the ATs within a given frequency assignment."

At the difference, the channels aimed at the present invention are any of those used in a TDMA communication system.

Therefore, the man skilled in the art is not aware in view of Pankaj how it is possible to select a channel in a TDMA communication system as it is taught in Chaponniere.

3 - First Step of the claimed method is recited as follows: "Receiving for each channel a periodic indication of the transmission quality of that channel;"

In Pankaj, para [0036] and [0037] it is said that:
"*The AN 122 receives a data request from the AT 126. The data request specifies the data rate at which the data is to be sent, […]. The AT 126 determines the data rate based on the quality of the Channel between AN 122 and AT 126*"

Therefore, no indication of the transmission quality of a channel is available with Pankaj, the quality of the channel being used at the AT and not at the AN. Furthermore, the quality of the channel is not periodically available but only when a user at the AT 126 has initiated a data request to the AN 122.

4 - Furthermore, the man skilled in the art has no reason to criticize teachings of Chaponniere in view of Pankaj because Chaponniere is acting on a wider basis than Pankaj, Pankaj being published later than Chaponniere.

5 - Second step of the claimed method is recited as follows:

"Storing these indications (periodic indication of the transmission quality of each channel) for each channel during a time window;"

Examiner is citing Bolgiano against that second step in view of Chaponniere. However, it is not possible to recover second step of the claimed method on the basis of both Chaponniere and Bolgiano because Chaponniere is unable to teach only first step of the method.

Chaponniere is not aware of receiving a periodic indication of the transmission quality of any channel.

Further, it has been shown how Pankaj is also unable to recover the first step.

Therefore, even Bolgiano was aware of second step without being aware of the first step, the claimed method is not obvious in view of them.

6 - On second step of the claimed method, Bolgiani teaches at column 23; lines 19-23 :

"All the measurements must be performed within a time window ..."

However, that time window is the time during which the measurement is performed. It is designed to cope with the instant speed of the vehicle on which a transmission is initiated. According to the claimed invention, plural indications are received during a time window as they are sent periodically. There is no indication in Bolgiano to a time window for storing the measurements.

7 - Quality of transmission as recited at second step of examined claim 2 is not recited in Bolgiano among the measurements which are recited in Bolgiano for which a time window is designed.

Therefore, even the making of a time window is a well-known measure in the field of measurements, it is not obvious in view of Bolgiano to design the said second step of the examined claim 1.

8 - In the examined claim 1, second step is directed toward storing indication of quality of transmission. Bolgiano failed to teach any idea about storing that kind of indication. Column 23, line 28, it is said:

"" ... the user terminal stores the message and ... "

The message is a distance message which is made on the basis of measurements during a time window small enough not to suffer vehicle speed effects.

Therefore, no idea about quality of transmission is made for storing in Bolgiano and then the claimed invention is not obvious.

9 - On third step of the amended claim it is said:

"*selecting at least one channel that have the best rank, the rank being the number of stored indication for that channel during the time window that are better than a current transmission quality indication*"

According to the Examiner:

"*(column 7 lines 22-39, Chaponniere et al. teaches selecting a channel out of a plurality of channels with best/high quality).*"

Chaponniere teaches a method to select at one time a channel out of a plurality of channels. A channel is selected when it "*has a relatively high instantaneous channel condition relative to the average channel conditions for that channel 106*". See col 6, lines 48-50. See also col. 6 lines 66-67 to col. 7, lines 1-4: "*it will be understood by those skilled in the art that granting access to a user associated with a channel 106 having the highest channel conditions relative to the average channel conditions for that channel would greatly increase the data throughput for channels that have greater variations in channel condition.*" Col. 7, lines 22-39 give an example of said method according to Fig. 2b.

Chaponniere only discloses a method to select a channel with respect to the instantaneous channel condition. In Chaponniere, there is no rank as it is defined in amended claim 1.

As disclosed in the claimed method, for each channel, a current transmission quality indication position or rank $P_i(t)$ is determined. The rank of the current transmission quality indication $C_i(t)$ is determined relative to those stored during the time window $C_i(t-T)... C_i(t-1)$ (see [0059], [0068]). That is, we determine for a current transmission quality indication the number of stored transmission quality indications during the time

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window that are better than the current one. For example, if the current one is the best then Pi(t)=1; if it is the worse, then Pi(t)=6.

Then a channel is selected among the channels that have the best current transmission quality indication rank ([0060]).

Therefore, the said selected channel in Chaponniere is not selected among a plurality of channels as in the claimed method.

Let us explain the differences of the methods in reference to the figure in the Appendix.

In Chaponniere, the selected channel will be (2). For channel (1), the ratio of current transmission quality indication to the average transmission quality indication is 1.78 (=4/(19/8)). For channel (2), the ratio of current transmission quality indication to the average transmission quality indication is 2.10 (=5/(19/8)). For channel (3), the ratio of current transmission quality indication to the average transmission quality indication is 1.14 (=3/(21/8)).

With the claimed method, the selected channel will be (1), as this channel has the best rank. For channel (1), the rank is 0, that is $P_i(t) = 1$. For channel (2), the rank is 2, that is $P_i(t) = 3$. For channel (3), the rank is 3, that is $P_i(t) = 4$.

Then in Chaponniere the selected channel is (2), which had bad radio conditions in time t-8, t-5, t-4, t-2, t-1. These bad radio conditions impacted the average value and lead to a unfair selection as indicated in [0012].

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To sum up, the claimed method as amended is not obvious over Chaponniere in view of Pankaj and in view of Bolgiano.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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Appendix

    - one explanatory drawing (not an amendment to the application).

FIGURE